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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,401	03/02/2004	Yuzuru Fukushima	09792909-5824	2557

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EXAMINER
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ALEJANDRO, RAYMOND

ART UNIT	PAPER NUMBER
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1745

MAIL DATE	DELIVERY MODE
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08/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/791,401	Applicant(s) FUKUSHIMA ET AL.	
	Examiner Raymond Alejandro	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/26/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

This office action is responsive to the amendment filed 08/10/07. The applicant has overcome the objections, most of the 35 USC 112 rejections and the 35 USC 102 rejection. Refer to the abovementioned amendment for specific details on applicant's rebuttal arguments and remarks. However, the present claims are finally rejected over new grounds of rejection as shown hereunder and for the reasons of record:

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for ethylene carbonate and/or propylene carbonate as high dielectric constant solvents, does not reasonably provide enablement for the entire group of high dielectric constant solvents as now recited in amended claims 1 and 8. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use or make the invention commensurate in scope with these claims.

Applicant's as-filed disclosure discloses that "*Concrete examples of other non-aqueous solvents are ethylene carbonate, propylene carbonate,  $\gamma$ -butyrolactone, dimethyl carbonate, diethyl carbonate, ethyl methyl carbonate, dipropyl carbonate, ethyl propyl carbonate,...*" (See page 6, 1<sup>st</sup> full paragraph), thereafter, applicant states "*As other non-aqueous solvents, it is*

*especially preferable to use ethylene carbonate and propylene carbonate. These solvents are electrochemically stable, and have high dielectric constant.*” (See page 6, 2<sup>nd</sup> full paragraph), then applicant continues to state *“It is preferable that the total content of ethylene carbonate and propylene carbonate in the electrolytic solution is 95 wt % or more”* (See paragraph bridging pages 6-7). Other than ethylene carbonate and propylene carbonate being identified as having high dielectric constant, applicant’s as-filed disclosure is wholly silent as to other high dielectric constant solvents or solvents exhibiting such a high dielectric constant characteristic. Since such a group of high dielectric constant solvents does include or cover a large number of specific solvents, the Examiner manifests herein that applicant’s specification does not convey in a sufficiently descriptive manner how to use or make an electrolyte containing high dielectric constant solvents other than that ethylene carbonate and propylene carbonate, nor does the disclosure states the potential positive or negative effects of using high dielectric constant solvents other than that ethylene carbonate and propylene carbonate.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1 and 8 are indefinite as they include recited language failing to specifically setting forth applicant’s invention in clear, concrete and unambiguous manner. For instance, it is immediately unclear for the Examiner examining the present application if the recitation “*an*

*electrolytic solution containing at least one selected from the group consisting of vinylethylene carbonate and its derivatives in the range of 0.05 wt % to 5 wt % in total, and a polymer*” (claim 1) and “*the electrolytic contains an electrolytic solution containing at least one from the group consisting of vinylethylene carbonate and its derivatives in the range of 0.05 wt % to 5 wt % in total and a compound*” (claim 8) does or does not include the limitation “a polymer” (claim 1) and “a compound” (claim 8) as part of the Markush group recitation. In this respect, applicant’s remark on page 7 (1<sup>st</sup> and 2<sup>nd</sup> full paragraphs) appears to suggest applicant’s intent to include the limitation “a polymer” (claim 1) and “a compound” (claim 8) in the Markush group recitation. Therefore, if that is the case, applicant is advised that the connotation of his invention, thus, does not include “a polymer” (claim 1) or “a compound” (claim 8) as an additional feature of the foregoing claims but they are included as one of the alternatives of the Markush group. This definitely changes the scope of the claims. Applicant is reminded that the scope of the claims can vary substantially depending on how applicant intends to recite the foregoing limitations.

*“Although an essential purpose of the examination process is to determine whether or not the claims define an invention that is both novel and nonobvious over the prior art, another essential purpose of patent examination is to determine whether or not the claims are precise, clear, correct, and unambiguous. The uncertainties of claim scope should be removed, as much as possible, during the examination process.” See MPEP 2171 Two Separate Requirements for Claims Under 35 U.S.C. 112, Second Paragraph.*

6. Claim 8 recites the limitation “*said polymer*” in line 9. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese publication JP 2002-15771 (heretofore the JP'771).

The objective of the present application is aimed at an electrolyte wherein the disclosed inventive concept comprises the specific electrolyte composition.

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As to claims 1 and 8:

The JP'771 discloses a non-aqueous electrolyte secondary cell and a non-aqueous electrolyte (TITLE). The cell comprises a positive electrode, a negative electrode and a non-aqueous electrolyte (P0045-0046, 0014, 0065, 0074/Abstract/CLAIM 7). The electrolyte comprises a mixture of solvents including ethylene carbonate (EC), propylene carbonate (PC),  $\gamma$ -butyrolactone (BL), vinyl ethylene carbonate (VEC), vinylene carbonate, ethylene sulfate, phenylethylene carbonate, tetraethylene glycol dimethyl ether (ABSTRACT/P0099, 0100, 0101). Specifically, the JP'711 is concerned with a mixture of multiple solvents including a 4<sup>th</sup> and/or 5<sup>th</sup> component (CLAIMS 1-3). VEC can be the 5<sup>th</sup> component (P0130).

*(Emphasis added→)* The JP'771 discloses the use of a gelled polymer electrolyte holding the electrolyte containing the electrolyte solution comprising solvents (P0040, 0056-0057, 0006, 0154). Additionally, disclosed therein is the use of at least ethylene carbonate (EC) and propylene carbonate (PC) in a combined amount of up to 85 % vol. (ABSTRACT, P0009, 0013, 0015, 0018, 0036, 0100-0101, CLAIM 1). *EC and PC are recognized in the art as high dielectric constant solvents.*

**Table 5** shows an electrolyte solution comprising EC, PC, BL and VEC, wherein the weight percent of vinyl ethylene carbonate (VEC) ranges from 0.5-5 % (See TABLE 5). Further disclosed is the specific reasons for adding vinyl ethylene carbonate in the specified amount (P104, 0125). *Thus, the JP'771 teaches the claimed wt % range of VEC with sufficient specificity.*

Additionally, it is disclosed the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057, 0154).

**Two approaches:**

- *the JP '771 discloses the claimed high molecular weight compound because it at once envisages combining an additional 4<sup>th</sup> and/or 5<sup>th</sup> component. In this case, either the 4<sup>th</sup> or the 5<sup>th</sup> component represents the high molecular weight compound.*
- *The JP '771 meet the claimed requirement because it discloses the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057)*

**As to claims 2 and 9:**

**EXAMPLE 39**, among other, in **TABLE 5** shows about 50:50 % ratio of EC and PC.

Other examples (See **EXAMPLES 35-38 and 40-44**) also show EC/PC ratio within the claimed ratio range.

**As to claims 3-4 and 10-11:**

The electrolyte solution comprises solvents and a Li-salt such as LiPF<sub>6</sub>, LiBF<sub>4</sub>, LiAsF<sub>6</sub>, LiCF<sub>3</sub>SO<sub>3</sub>, LiN(CF<sub>3</sub>SO<sub>2</sub>)<sub>2</sub> (P0096, 0131).

**As to claims 5 and 12:**

The electrolyte comprises a mixture of solvents including ethylene carbonate (EC), propylene carbonate (PC),  $\gamma$ -butyrolactone (BL), vinylethylene carbonate (VEC), vinylene carbonate, ethylene sulfate, phenylethylene carbonate, tetraethylene glycol dimethyl ether (ABSTRACT/P0099, 0100, 0101). **Table 5** shows an electrolyte solution comprising EC, PC, BL and VEC, wherein the weight percent of vinylethylene carbonate ranges from 0.5-5 % (See TABLE 5).

**As to claims 6-7 and 13-14:**



Disclosed is the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057, 0154).

The JP'771 describes a battery comprising an electrolyte system as disclosed hereinabove. However, the preceding prior art reference does not expressly disclose the specific weight percent of the high dielectric constant solvent.

In view of the above, it would have been obvious to a person possessing a level of ordinary skill in the field of the invention to employ the specific weight percent of the high dielectric constant solvent in the electrolyte solution as instantly claimed or any other amount of those high dielectric constant solvents as the JP'771 itself discloses that charging/discharging cycle, viscosity and ionic conductivity properties (*See JP'771 at paragraphs 0100-0101 & 0003*) are affected when the amount or content of high dielectric constant solvents in the electrolyte solution is varied or changed. Thus, the JP'771 recognizes the specific weight percent of the high dielectric constant solvents in the electrolyte solution as a variable that achieves a recognized result (*i.e. capable of varying the charge/discharge cycle, viscosity and ionic conductivity characteristics*) *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382; and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Hence, it is prima-facie obvious to select an optimized weight of the high dielectric constant solvents in the electrolyte solution in order to obtain an electrolyte solution exhibiting suitable charging/discharging, viscous and ionic conductive properties. Additionally, generally speaking, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed

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in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, it is prima-facie obvious to choose or select the specific amount of the high dielectric constant solvents. *See MPEP 2144.05 Obviousness of Ranges*.

11. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese publication JP 2002-15771 (heretofore the JP’771) in view the Japanese publication JP 2001-057234 (herein called the JP’234).

The objective of the present application is aimed at an electrolyte wherein the disclosed inventive concept comprises the specific electrolyte composition.

As to claims 1 and 8:

The JP’771 discloses a non-aqueous electrolyte secondary cell and a non-aqueous electrolyte (TITLE). The cell comprises a positive electrode, a negative electrode and a non-aqueous electrolyte (P0045-0046, 0014, 0065, 0074/Abstract/CLAIM 7). The electrolyte comprises a mixture of solvents including ethylene carbonate (EC), propylene carbonate (PC),  $\gamma$ -butyrolactone (BL), vinyl ethylene carbonate (VEC), vinylene carbonate, ethylene sulfate, phenylethylene carbonate, tetraethylene glycol dimethyl ether (ABSTRACT/P0099, 0100, 0101). Specifically, the JP’711 is concerned with a mixture of multiple solvents including a 4<sup>th</sup> and/or 5<sup>th</sup> component (CLAIMS 1-3). VEC can be the 5<sup>th</sup> component (P0130).

(*Emphasis added*→) The JP’771 discloses the use of a gelled polymer electrolyte holding the electrolyte containing the electrolyte solution comprising solvents (P0040, 0056-0057, 0006, 0154). Additionally, disclosed therein is the use of at least ethylene carbonate (EC) and

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propylene carbonate (PC) in a combined amount of up to 85 % vol. (ABSTRACT, P0009, 0013, 0015, 0018, 0036, 0100-0101, CLAIM 1). *EC and PC are recognized in the art as high dielectric constant solvents.*

**Table 5** shows an electrolyte solution comprising EC, PC, BL and VEC, wherein the weight percent of vinylethylene carbonate (VEC) ranges from 0.5-5 % (See TABLE 5). Further disclosed are the specific reasons for adding vinylethylene carbonate in the specified amount (P104, 0125). *Thus, the JP '771 teaches the claimed wt % range of VEC with sufficient specificity.*

Additionally, it is disclosed the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057, 0154).

**Two approaches:**

- *the JP '771 discloses the claimed high molecular weight compound because it at once envisages combining an additional 4<sup>th</sup> and/or 5<sup>th</sup> component. In this case, either the 4<sup>th</sup> or the 5<sup>th</sup> component represents the high molecular weight compound.*
- *The JP '771 meet the claimed requirement because it discloses the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057)*

As to claims 2 and 9:

**EXAMPLE 39**, among other, in **TABLE 5** shows about 50:50 % ratio of EC and PC. Other examples (See **EXAMPLES 35-38 and 40-44**) also show EC/PC ratio within the claimed ratio range.

As to claims 3-4 and 10-11:

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The electrolyte solution comprises solvents and a Li-salt such as  $\text{LiPF}_6$ ,  $\text{LiBF}_4$ ,  $\text{LiAsF}_6$ ,  $\text{LiCF}_3\text{SO}_3$ ,  $\text{LiN}(\text{CF}_3\text{SO}_2)_2$  (P0096, 0131).

As to claims 5 and 12:

The electrolyte comprises a mixture of solvents including ethylene carbonate (EC), propylene carbonate (PC),  $\gamma$ -butyrolactone (BL), vinylethylene carbonate (VEC), vinylene carbonate, ethylene sulfate, phenylethylene carbonate, tetraethylene glycol dimethyl ether (ABSTRACT/P0099, 0100, 0101). **Table 5** shows an electrolyte solution comprising EC, PC, BL and VEC, wherein the weight percent of vinylethylene carbonate ranges from 0.5-5 % (See TABLE 5).

As to claims 6-7 and 13-14:

Disclosed is the use of polyacrylonitrile (PAN) or polyvinylidene fluoride (PVdF) in the non-aqueous electrolyte (P0057, 0154).

The JP'771 describes a battery comprising an electrolyte system as disclosed hereinabove. However, the preceding prior art reference does not expressly disclose the specific weight percent of the high dielectric constant solvent.

The JP'234 discloses a non-aqueous electrolyte and a non-aqueous electrolyte secondary battery wherein the non-aqueous electrolyte is composed of 95 wt % of cyclic carbonate solvents such as propylene carbonate (PC) and/or ethylene carbonate (EC) (P0025-0026, 0003, Abstract) to improve the life of a battery and the leakage current value (ABSTRACT). *EC and PC are recognized in the art as high dielectric constant solvents.*

In view of the above, it would have been obvious to a person possessing a level of ordinary skill in the field of the invention to employ the specific weight percent of the high

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dielectric constant solvent of the JP'234 in the electrolyte solution of the JP'271 because the JP'234 teaches that such an amount (weight percent) of the high dielectric constant solvent in the electrolytic solution allows to improve the life of a battery and the leakage current value.

Moreover, both the JP'771 and the JP'234 discloses that charging/discharging cycle, viscosity and ionic conductivity properties (*See JP'771 at paragraphs 0100-0101 & 0003*) and/or the life of a battery and the leakage current value (*See JP'237 at P0025-0026, 0003, Abstract*) are controlled or affected when the amount or content of high dielectric constant solvents in the electrolyte solution is varied or changed. Thus, both the JP'771 and the JP'234 recognize the specific weight percent of the high dielectric constant solvents in the electrolyte solution as a variable that achieves a recognized result (*i.e. capable of varying the charge/discharge cycle, viscosity and ionic conductivity characteristics; and/or batter life and leakage current value*) *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382; and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Hence, it is prima-facie obvious to select an optimized weight of the high dielectric constant solvents in the electrolyte solution in order to obtain an electrolyte solution exhibiting suitable charging/discharging, viscous and ionic conductive properties. Additionally, generally speaking, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

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Thus, it is prima-facie obvious to choose or select the specific amount of the high dielectric constant solvents. *See MPEP 2144.05 Obviousness of Ranges.*

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro  
Primary Examiner  
Art Unit.1745

  
**RAYMOND ALEJANDRO  
PRIMARY EXAMINER**